

## Author index of Volume 107\*

- Aliabadi, S.K. and T.E. Tezduyar, Space-time finite element computation of compressible flows involving moving boundaries and interfaces (1–2) 209–223
- Aluru, N.R., A. Raefsky, P.M. Pinsky, K.H. Law, R.J.G. Goossens and R.W. Dutton, A finite element formulation for the hydrodynamic semiconductor device equations (1–2) 269–298
- Araya, R.A. and G.N. Gatica, A new nonconforming Galerkin scheme for the Stokes problem: Partially circumventing the discrete Babuška–Brezzi condition (1–2) 193–208
- Austin, M.A. and B.K. Voon, Structural optimization in a distributed computing environment (1–2) 173–192
- Avello, A., J.M. Jiménez, E. Bayo and J.G. de Jalón, A simple and highly parallelizable method for real-time dynamic simulation based on velocity transformations (3) 313–339
- Bayo, E., see Avello, A. (3) 313–339
- Briassoulis, D., The four-node  $C^0$  Mindlin plate bending element reformulated, Part I: Formulation (1–2) 23–43
- Briassoulis, D., The four-node  $C^0$  Mindlin plate bending element reformulated, Part II. Verification (1–2) 45–100
- Cheng, J.-H., Adaptive grid optimization for structural analysis – Geometry-based approach (1–2) 1–22
- Dutton, R.W., see Aluru, N.R. (1–2) 269–298
- French, D.A. and L.B. Wahlbin, On the numerical approximation of an evolution problem in nonlinear viscoelasticity (1–2) 101–116
- French, D.A., A space-time finite element method for the wave equation (1–2) 145–157
- García de Jalón, J.G., see Avello, A. (3) 313–339
- Gatica, G.N., see Araya, R.A. (1–2) 193–208
- Goossens, R.J.G., see Aluru, N.R. (1–2) 269–298
- Gosz, M. and B. Moran, On the formulation and local implementation of a variationally coupled finite element–boundary element method (1–2) 159–172

\* The issue number is given in front of the page numbers.

- Haber, R.B., see Vidal, C.A. (3) 393-431
- Ibrahimbegović, A., Mixed finite element with drilling rotations for plane problems in finite elasticity (1-2) 225-238
- Jiménez, J.M., see Avello, A. (3) 313-339
- Johnson, C., Discontinuous Galerkin finite element methods for second order hyperbolic problems (1-2) 117-129
- Law, K.H., see Aluru, N.R. (1-2) 269-298
- Li, S., see Vu-Quoc, L. (3) 341-391
- Liu, Y. and F.J. Rizzo, Hypersingular boundary integral equations for radiation and scattering of elastic waves in three dimensions (1-2) 131-144
- Moran, B., see Gosz, M. (1-2) 159-172
- Pang, J.S., see Tin-Loi, F. (3) 299-312
- Pilkey, W.D., see Schramm, U. (1-2) 251-268
- Pinsky, P.M., see Aluru, N.R. (1-2) 269-298
- Raefsky, A., see Aluru, N.R. (1-2) 269-298
- Rizzo, F.J., see Liu, Y. (1-2) 131-144
- Sansour, C., On the spatial description in elasticity and the Doyle-Ericksen formula (1-2) 239-249
- Schramm, U. and W.D. Pilkey, Structural shape optimization for the torsion problem using direct integration and *B*-splines (1-2) 251-268
- Tezduyar, T.E., see Aliabadi, S.K. (1-2) 209-223
- Tin-Loi, F. and J.S. Pang, Elastoplastic analysis of structures with nonlinear hardening: A nonlinear complementarity approach (3) 299-312
- Vidal, C.A. and R.B. Haber, Design sensitivity analysis for rate-independent elastoplasticity (3) 393-431
- Voon, B.K., see Austin, M.A. (1-2) 173-192
- Vu-Quoc, L. and S. Li, Invariant-conserving finite difference algorithms for the nonlinear Klein-Gordon equation (3) 341-391
- Wahlbin, L.B., see French, D.A. (1-2) 101-116

## Subject index of Volume 107\*

### *Boundary element methods*

- Hypersingular boundary integral equations for radiation and scattering of elastic waves in three dimensions, Y. Liu and F.J. Rizzo (1-2) 131-144
- On the formulation and local implementation of a variationally coupled finite element-boundary element method, M. Gosz and B. Moran (1-2) 159-172

### *Coupled problems*

- On the formulation and local implementation of a variationally coupled finite element-boundary element method, M. Gosz and B. Moran (1-2) 159-172

### *Dynamics*

- Discontinuous Galerkin finite element methods for second order hyperbolic problems, C. Johnson (1-2) 117-129
- A space-time finite element method for the wave equation, D.A. French (1-2) 145-157
- Space-time finite element computation of compressible flows involving moving boundaries and interfaces, S.K. Aliabadi and T.E. Tezduyar (1-2) 209-223
- A simple and highly parallelizable method for real-time dynamic simulation based on velocity transformations, A. Avello, J.M. Jiménez, E. Bayo and J. García de Jalón (3) 313-339

### *Elasticity*

- Hypersingular boundary integral equations for radiation and scattering of elastic waves in three dimensions, Y. Liu and F.J. Rizzo (1-2) 131-144
- Mixed finite element with drilling rotations for plane problems in finite elasticity, A. Ibrahimbegović (1-2) 225-238
- On the spatial description in elasticity and the Doyle-Ericksen formula, C. Sansour (1-2) 239-249
- Structural shape optimization for the torsion problem using direct integration and *B*-splines, U. Schramm and W.D. Pilkey (1-2) 251-268

\* The issue number is given in front of the page numbers.



*Electronics*

- A finite element formulation for the hydrodynamic semiconductor device equations, N.R. Aluru, A. Raefsky, P.M. Pinsky, K.H. Law, R.J.G. Goossens and R.W. Dutton (1-2) 269-298

*Finite element and matrix method*

- Adaptive grid optimization for structural analysis – Geometry-based approach, J.-H. Cheng (1-2) 1- 22
- The four-node  $C^0$  Mindlin plate bending element reformulated, Part I: Formulation, D. Briassoulis (1-2) 23- 43
- The four-node  $C^0$  Mindlin plate bending element reformulated, Part II. Verification, D. Briassoulis (1-2) 45-100
- On the numerical approximation of an evolution problem in nonlinear viscoelasticity, D.A. French and L.B. Wahlbin (1-2) 101-116
- Discontinuous Galerkin finite element methods for second order hyperbolic problems, C. Johnson (1-2) 117-129
- A space-time finite element method for the wave equation, D.A. French (1-2) 145-157
- On the formulation and local implementation of a variationally coupled finite element-boundary element method, M. Gosz and B. Moran (1-2) 159-172
- A new nonconforming Galerkin scheme for the Stokes problem: Partially circumventing the discrete Babuška-Brezzi condition, R.A. Araya and G.N. Gatica (1-2) 193-208
- Space-time finite element computation of compressible flows involving moving boundaries and interfaces, S.K. Aliabadi and T.E. Tezduyar (1-2) 209-223
- Mixed finite element with drilling rotations for plane problems in finite elasticity, A. Ibrahimbegović (1-2) 225-238
- A finite element formulation for the hydrodynamic semiconductor device equations, N.R. Aluru, A. Raefsky, P.M. Pinsky, K.H. Law, R.J.G. Goossens and R.W. Dutton (1-2) 269-298

*Fluid mechanics*

- A new nonconforming Galerkin scheme for the Stokes problem: Partially circumventing the discrete Babuška-Brezzi condition, R.A. Araya and G.N. Gatica (1-2) 193-208
- Space-time finite element computation of compressible flows involving moving boundaries and interfaces, S.K. Aliabadi and T.E. Tezduyar (1-2) 209-223
- A finite element formulation for the hydrodynamic semiconductor device equations, N.R. Aluru, A. Raefsky, P.M. Pinsky, K.H. Law, R.J.G. Goossens and R.W. Dutton (1-2) 269-298

*Gas dynamics*

- Space-time finite element computation of compressible flows involving moving boundaries and interfaces, S.K. Aliabadi and T.E. Tezduyar (1-2) 209-223

*General Rayleigh-Ritz and Galerkin techniques*

- Discontinuous Galerkin finite element methods for second order hyperbolic problems, C. Johnson (1-2) 117-129
- A space-time finite element method for the wave equation, D.A. French (1-2) 145-157
- A new nonconforming Galerkin scheme for the Stokes problem: Partially circumventing the discrete Babuška-Brezzi condition, R.A. Araya and G.N. Gatica (1-2) 193-208
- Space-time finite element computation of compressible flows involving moving boundaries and interfaces, S.K. Aliabadi and T.E. Tezduyar (1-2) 209-223
- Mixed finite element with drilling rotations for plane problems in finite elasticity, A. Ibrahimbegović (1-2) 225-238

*Modern computer architecture*

- Structural optimization in a distributed computing environment, M.A. Austin and B.K. Voon (1-2) 173-192
- A simple and highly parallelizable method for real-time dynamic simulation based on velocity transformations, A. Avello, J.M. Jiménez, E. Bayo and J. García de Jalón (3) 313-339

*Nonlinear mechanics*

- Mixed finite element with drilling rotations for plane problems in finite elasticity, A. Ibrahimbegović (1-2) 225-238
- On the spatial description in elasticity and the Doyle-Ericksen formula, C. Sansour (1-2) 239-249
- A simple and highly parallelizable method for real-time dynamic simulation based on velocity transformations, A. Avello, J.M. Jiménez, E. Bayo and J. García de Jalón (3) 313-339
- Invariant-conserving finite difference algorithms for the nonlinear Klein-Gordon equation, L. Vu-Quoc and S. Li (3) 341-391

*Numerical solution procedures*

- Elastoplastic analysis of structures with nonlinear hardening: A nonlinear complementarity approach, F. Tin-Loi and J.S. Pang (3) 299-312
- Invariant-conserving finite difference algorithms for the nonlinear Klein-Gordon equation, L. Vu-Quoc and S. Li (3) 341-391

*Optimization*

- Adaptive grid optimization for structural analysis – Geometry-based approach, J.-H. Cheng (1-2) 1– 22

*Optimization and design of structures*

- Structural optimization in a distributed computing environment, M.A. Austin and B.K. Voon (1-2) 173–192
- Structural shape optimization for the torsion problem using direct integration and *B*-splines, U. Schramm and W.D. Pilkey (1-2) 251–268
- Design sensitivity analysis for rate-independent elastoplasticity, C.A. Vidal and R.B. Haber (3) 393–431

*Plasticity*

- Elastoplastic analysis of structures with nonlinear hardening: A nonlinear complementarity approach, F. Tin-Loi and J.S. Pang (3) 299–312
- Design sensitivity analysis for rate-independent elastoplasticity, C.A. Vidal and R.B. Haber (3) 393–431

*Shells and plates*

- The four-node  $C^0$  Mindlin plate bending element reformulated, Part I: Formulation, D. Briassoulis (1-2) 23– 43
- The four-node  $C^0$  Mindlin plate bending element reformulated, Part II. Verification, D. Briassoulis (1-2) 45–100

*Singularity methods*

- Hypersingular boundary integral equations for radiation and scattering of elastic waves in three dimensions, Y. Liu and F.J. Rizzo (1-2) 131–144

*Structural mechanics*

- Adaptive grid optimization for structural analysis – Geometry-based approach, J.-H. Cheng (1-2) 1– 22
- Elastoplastic analysis of structures with nonlinear hardening: A nonlinear complementarity approach, F. Tin-Loi and J.S. Pang (3) 299–312

*Viscoelastic and viscoplastic media*

- On the numerical approximation of an evolution problem in nonlinear viscoelasticity, D.A. French and L.B. Wahlbin (1-2) 101–116

*Wave motion*

- Discontinuous Galerkin finite element methods for second order  
hyperbolic problems, C. Johnson (1-2) 117-129
- Hypersingular boundary integral equations for radiation and scattering  
of elastic waves in three dimensions, Y. Liu and F.J. Rizzo (1-2) 131-144
- A space-time finite element method for the wave equation,  
D.A. French (1-2) 145-157

